Volunteer Firemen

JANUARY

1941

NATIONAL FIRE PROTECTION ASSOCIATION
60 Batterymarch Street INTERNATIONAL Boston, Massachusetts

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Mack resources, the largest in the fire apparatus industry, keep vital laboratory and shop experiment moving constantly toward the building of better Mack units. That's why Mack reliability is unequaled. Complete replacement service when needed—no Mack unit will ever be an "orphan."

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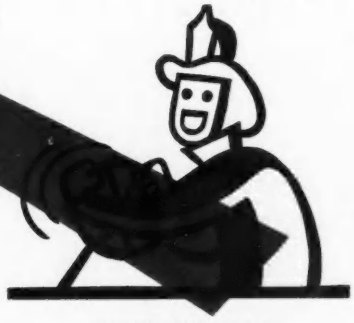

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MACK IS PROUD OF BUILDING THE BEST. WE INVITE COMPARISON.

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FIRE APPARATUS

Volunteer Firemen

Volume 8 Number 1

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THE front cover picture shows Herbert W. Lange with the set-up for his lecture on extinguishing flame which is reported on pages 4 and 5.

FIRE Marshal W. J. Scott of the province of Ontario to whose courtesy we were indebted for the statement last month about Ontario's civilian defense plans against possible air raids, says that we gave the province of Ontario undeserved credit for being the first of the Canadian provinces to put such plans into effect.

Actually, the coastal provinces of Nova Scotia, New Brunswick and British Columbia were all organized in September, 1939, immediately on the declaration of war. This program was carried out under the direction of the Department of Pensions and National Health. Dr. W. O. Gliddon, Federal A. R. P. Officer, of that department, also comments on our article indicating that defense measures in these provinces were considered against all forms of enemy activity which might affect the civilian population. Last summer the province of Quebec organized a Civilian Protection Committee issuing air raid precaution instructions mimeographed in French and English editions.

Here's one of the best new ideas for use in a fire prevention campaign. It comes from Captain Stephen E. Sanislo, Safety Educational Director of the Seattle, Washington, Fire Department. Seattle firemen, making home inspections during Fire Prevention Week 1940, issued nearly 96,000 of them.

THE mid-winter western meeting of the N.F.P.A. Fire Marshal's Section in Chicago last month gave consideration to the part of fire protection in the national defense program. Speaking on the subject were Executive Secretary Percy Bugbee, Mr. W. S. Devereaux of the Federal Bureau of Investigation, and Mr. A. Bruce Bielaski, Chief of the arson investigation staff of the National Board of Fire Underwriters. As yet, they reported, there have been no arson fires or acts of sabotage in the U. S. which are attributable to the concerted efforts of foreign agents. The thought was expressed that such fires and explosions as had been experienced were probably due to other factors. Under defense contracts industrial plants are being pressed to the production limit. Such plants have a tendency to let up on fire prevention precautions and supervision of fire protection equipment. New and inexperienced men tend to cause both fires and accidents.

Chief J. W. Just, Director, Fire Service Extension, University of Maryland, made a report to the meeting on the plans for the organization for national defense worked out by Maryland.

The states represented at the meeting by state fire marshals were: Horace M. Davis, Nebraska; John Strohm, Iowa; Clem Smith, Indiana; Guy E. Williams, Arkansas; D. P. Vandivier, Kentucky; Arnold Renner, Michigan; F. B. Watkins, West Virginia; Clyde Latchem, Kansas. The following states were represented by deputy fire marshals: E. J. Meyers, Maryland; Alice Daubert, Wisconsin; George Anderson, Illinois; Leonard C. Lund, Minnesota. City fire marshals were present from Detroit, Cleveland, Milwaukee, Minneapolis, Toledo, Peoria, Knoxville, Akron and Amarillo.

LAST month 10 departments with 122 men joined the Volunteer Firemen's Section for the first time. In addition 90 departments with 1,955 men renewed membership. This makes the total enrollment 702 departments and 14,766 men. The following departments are newly enrolled:

Russellville Fire Department, Russellville, Alabama.

Dorris Fire Department, Dorris, California.

Martinez Fire Department, Martinez, California.

Sikeston Volunteer Fire Department, Sikeston, Missouri.

Washington Volunteer Fire Company, Washington, Missouri.

Verona Fire Department, Verona, New Jersey.

Hartsdale Fire Department, Hartsdale, New York.

Mingo Junction Volunteer Fire Department, Mingo Junction, Ohio.

West Alexandria Fire Department, West Alexandria, Ohio.

Shinnston Volunteer Fire Department, Inc., Shinnston, West Virginia.

THE estimated U. S. fire loss for November, 1940, according to the National Board of Fire Underwriters is $23,449,000. This figure is based on notices of incurred loss received by insurance companies, members of the board, plus an allowance for unreported and uninsured losses. Losses for the first eleven months of 1940 are slightly less than losses for the same eleven months of 1939. The following table shows the losses for these months of 1939 and 1940:

	1939	1940
January	$27,615,316	$36,260,650
February	29,303,520	34,410,250
March	30,682,168	29,788,800
April	27,061,522	26,657,190
May	27,031,700	23,446,590
June	24,190,700	19,506,000
July	22,468,304	20,322,800
August	22,800,500	20,722,100
September	22,837,250	21,198,000
October	24,300,500	22,091,140
November	27,248,160	23,449,000
Total 11 months	$285,539,640	$277,852,520

A lecture stunt involving a principle not yet applied to practical fire extinguishment. Why does the candle go out when the horn sounds? The horn is a vibrating type producing no air currents.

Foam is tough and stable and will insulate the hand from the heat of a blow torch. Foam discharged from a 2½-gallon extinguisher will practically fill a 20-gallon can.

WHY DOES THE FIRE GO OUT?

By Herbert W. Lange

A digest of a demonstration lecture by a distinguished member of the staff of Underwriters' Laboratories, Inc. The complete lecture with a list of the equipment required to make the demonstrations may be obtained from Underwriters' Laboratories, Inc., 207 East Ohio St., Chicago, Ill.

LIGHT a match, and blow it out—so. A fire has been extinguished. All of us have done that thousands of times, yet what is this phenomenon of extinguishment? To understand it, it is necessary to understand combustion.

Combustion is oxidation taking place at such a rapid rate as to produce luminous flame. Oxidation takes place all of the time in most materials. In the case of iron, the result of oxidation is rust or iron oxide. Oxidation in all things produces heat, and if it takes place rapidly enough, light is produced.

There are several common ways of extinguishing fire. In practical importance their probable order is: (1) cooling; (2) smothering; (3) separating flame from burning material.

Cooling is best demonstrated by placing a can of burning paraffin in a pan of water. The water does not come into contact with the paraffin but it serves to cool the paraffin in the can faster than the flames can heat it. Gradually the flames recede and then go out.

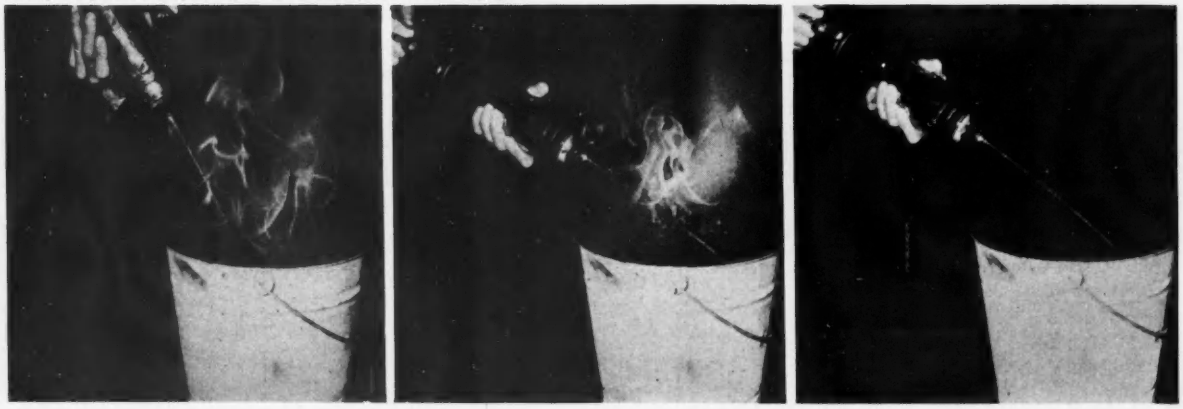
Smothering is the old fashioned or housewife's kitchen method of flame extinguishment. When chops in the frying pan catch on fire, she places a cover over them and when she removes the cover, the fire has gone out. Why? Because she has robbed the fire of its oxygen.

The match was extinguished by separation, blowing the flame away from the burning material.

The most abundant liquid in this world, water, is also one of the very best fire extinguishing agents. To raise the temperature of a pound of water up to and past the steam point requires the addition of over 1,000 British thermal units. In other words, when one pound of water is changed to steam it takes over 1,000 Btu away from some-

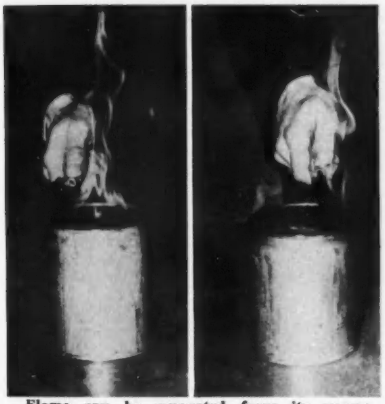
Above—a small carbon dioxide extinguisher is used on burning alcohol. (Left) Carbon dioxide gas chases the fire away. (Right) The heavy gas cloud has settled down on the surface of the burning liquid and the fire has been extinguished by its smothering effect.

Below—an extinguisher of the vaporizing liquid type should not be directed into the flames. Rather, it should be discharged against the side of the pail as shown center and right. This breaks the stream up into readily evaporated droplets to form a dense, fire-smothering gas.



thing else. This is what makes water primarily suitable on deep-seated wood or textile fires, and under certain conditions the performance of water as an extinguishing agent can be improved somewhat by the addition of certain fire-proofing chemicals such as salts of ammonium, potassium, or calcium.

Hand extinguishers employing water as the main extinguishing agent are made in a number of designs. In one of the common types a solution of sodium bicarbonate and sulphuric acid mix and react when the extinguisher is inverted. Carbon dioxide gas is formed which serves as the pressure means for discharging the solution in a continuous stream. The chemicals provide pressure



Flame can be separated from its source by mechanical means. Here it is sliced from burning alcohol with a knife.

but do not add a measurable fire extinguishing effect over that afforded by plain water.

Another type of extinguisher similar in appearance employs a carbon dioxide cartridge for pressure. In addition an ordinary hand pump extinguisher is available and when freezing temperatures may be encountered calcium chloride solutions are employed as an extinguishing agent. Calcium chloride solutions depress the freezing point of the liquid to as low as minus 50° F.

Vaporizing liquid employing carbon tetrachloride as a base rapidly evaporates when played upon hot surfaces and forms a heavy, fire-smothering gas. Only about 100 Btu per pound are necessary to evaporate the liquid, while over 1,000 Btu are required for each pound of water, so in comparison with water, carbon tetrachloride has little cooling effect. Vaporizing liquid type extinguishers are available in a number of designs and sizes.

Smothering a flammable liquid fire with a foam blanket applied by hand. In a stream, foam should hit the side of container and flow gently from there over the burning liquid.

Extinguishers have recently been developed which employ a dry compound, a powder which is forcibly ejected in dust cloud form when a carbon dioxide pressure cartridge within the extinguisher is punctured. The dust cloud is effective in sweeping the flame from a burning surface, cooling and smothering the fire. This powder is essentially sodium bicarbonate or baking soda. Other powdered materials have this same extinguishing property in varying degrees and some do not have it at all.

Foam both quenches and smothers. The foam type extinguisher is very similar to the soda-acid device, a main difference being the addition of a foaming ingredient. This makes a difference in performance much like the difference between drawing off beer from the spigot and soda water from the syphon bottle. The beer has foam of a certain stability whereas the froth in soda water quickly dissipates.

Foam streams should not be played into burning liquids but they should be directed against the inside of the container so that the foam drops gently on the surface of the liquid and forms a smothering blanket.

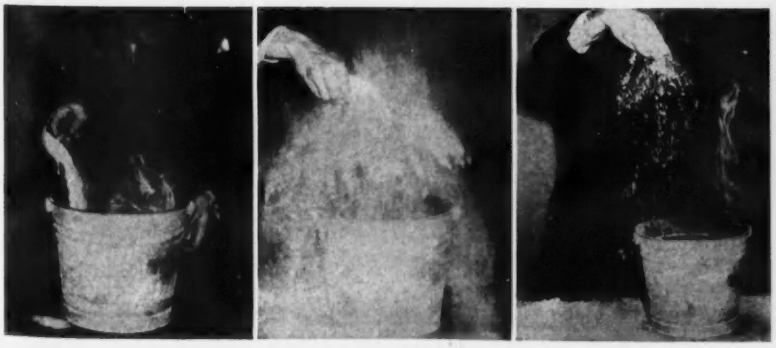
You have heard mention of carbon dioxide many times in this discussion. Just what effect would carbon dioxide alone have on a fire? Carbon dioxide is a relatively inert gas. In its solid form it is dry ice.

A small carbon dioxide extinguisher is a 2-pound unit. Such extinguishers have storage cylinders of many sizes. When the trigger of this hand extinguisher is pressed, CO_2 in gaseous and snow form is discharged. Regardless of the temperature of the atmosphere or of the extinguisher, the temperature of the snow is always exactly minus 110° F. Despite the low temperature of the discharge, a cooling effect in the order of only 100 Btu per pound is available, and accordingly the principal extinguishing action is smothering.

There is one more demonstration, not of any practical significance in the present state of the art, but which is an oddity. An automobile horn, not of the air type but of the electrically vibrated diaphragm type, when sounded, sets up a terrific vibration in the flame of a candle and finally succeeds in extinguishing it. Why did the flame go out? If you have been following, you should come very close to having the right answer.

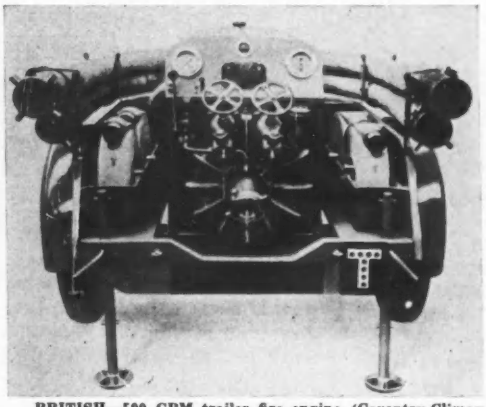
Right—extinguishing flammable liquid fire with water spray. Water in such finely divided form exposes a great total area to the flames, robs them of heat, and cools the liquid surface, retards release of flammable vapors and combustion ceases.

Below—baking soda will extinguish flames only when scattered over the flames (center) and not when applied in bulk (left). (Right) Flames are unaffected by cement or similar dusts.

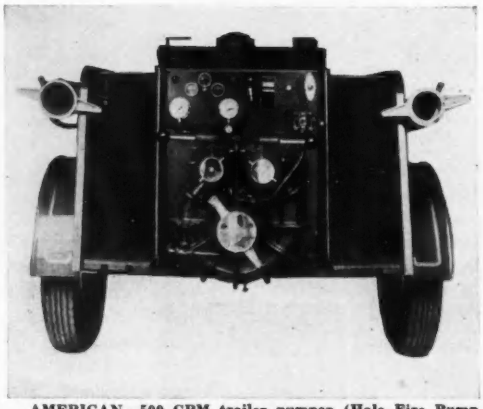


America, too, Has Trailer Fire Engines, One Use of Which Is as Auxiliary Apparatus for War Time Fire Fighting

A DISPLAY OF TRAILER-PUMPERS

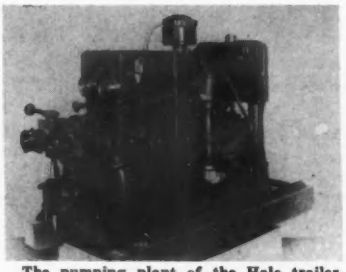


BRITISH—500 GPM trailer fire engine (Coventry-Climax Engines, Ltd.)

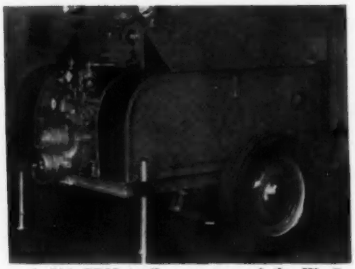


AMERICAN—500 GPM trailer pumper (Hale Fire Pump Co., Inc., Conshohocken, Pa.).

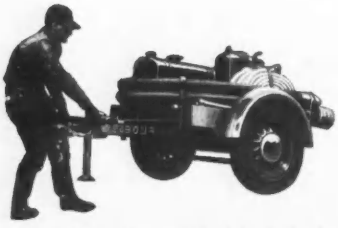
A side view of the trailer pumper of the Hale Fire Pump Co., Inc., the rear view of which is shown above at right. Its pump is a Hale centrifugal type driven by an 85 HP Ford V-8 direct-connected motor. The pumping assembly has passed the 12-hour test of the National Board of Fire Underwriters.



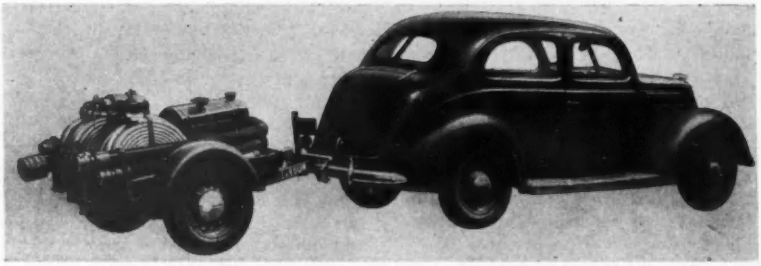
The pumping plant of the Hale trailer is the self contained unit shown above. Maxim Motor Co., Middleboro, Mass., furnished the above picture of the unit which they use as the pumping plant on regular as well as trailer apparatus. The motor for the pump additional to that which drives the apparatus is an added feature of reliability.



A 500 GPM trailer pumper of the W. S. Darley Co., Chicago, Ill. The pump is a Champion centrifugal driven by 85 HP Ford V-8, an assembly which has passed the 12-hour test of the National Board of Fire Underwriters. Note also the hose compartments provided.

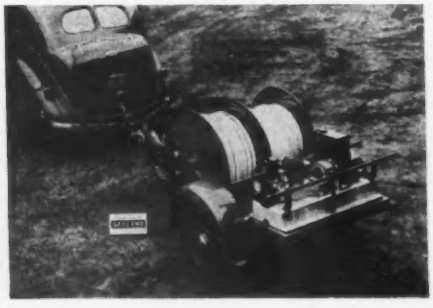


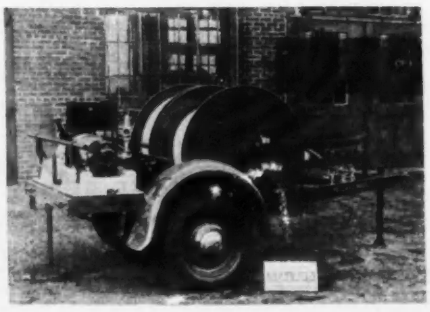
One man can move the LaBour trailer on smooth ground. It may be attached to any passenger car without previous preparation. Fire departments would find it useful as an extra piece for rural fires. It is also a type suitable for pumping out basements.



A light weight mobile unit of moderate capacity is the LaBour Fire Trailer (The LaBour Co., Inc., Elkhart, Ind.), illustrated above, designed for small communities, summer resorts, estates or farms, isolated plants or institutions. It weighs approximately 1,600 pounds and includes a LaBour centrifugal pump capable of 150 GPM at 100 pounds driven by a Hercules Special ZXB engine. It carries 24 feet of 3-inch suction hose and 500 feet of 1½-inch hose and can be supplied with 250 feet of 2½-inch hose if preferred.

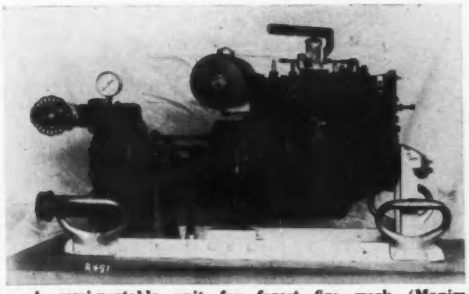
At right are two views of the Sealand Mobile Portable Unit (Sealand Corp., Bridgeport, Conn.). It consists of 2 reels, each with 500 feet of 1½-inch hose, 20 feet of 2-inch suction hose and accessories. A gasoline engine driven pump, centrifugal or rotary type, is furnished in capacities 50 to 150 GPM as may be specified. The 100 GPM pump has a 22 HP motor. The pumping unit is portable as illustrated on the opposite page.





For Getting Streams to Inaccessible Places and for the Variety of Their Uses, Add a Portable to Your Equipment

A DISPLAY OF PORTABLE PUMPS



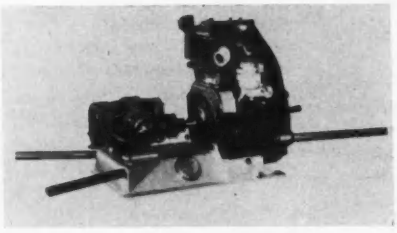
A semi-portable unit for forest fire work (Maxim Motor Co., Middleboro, Mass.) weighing 300 pounds. Consists of a 2-stage Hale centrifugal pump and 4-cylinder Hercules motor. Capacity 150 GPM at 125 pounds.

"Fire Eagle" portable booster pump (Gorman-Rupp Co., Mansfield, Ohio. Weight 130 pounds), shown below feeding approximately 160 GPM to pumper. It will pump out a basement at 260 GPM.

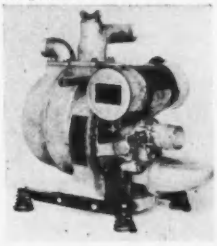
PACIFIC PORTABLE PUMPERS (Pacific Marine Supply Co., Seattle.)

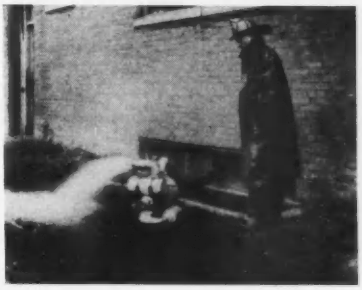
Type Z GPM	Pounds
32	100
24	150
19	200
12	240

Weight 125 pounds



"Homelite" portable (Homelite Corp., Port Chester, N. Y.), useful because of its light weight and adaptability. Right, 2-inch model supplying short 1½-inch line, ⅝-inch nozzle. Right, below, 3-inch model pumping out basement at 250 GPM. Weights: 2-inch model 80 pounds, 3-inch model 91 pounds.

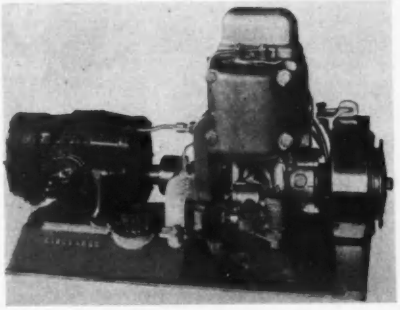




"Northern" rotary type pumps are used on all three models designed for forest fire pumping.

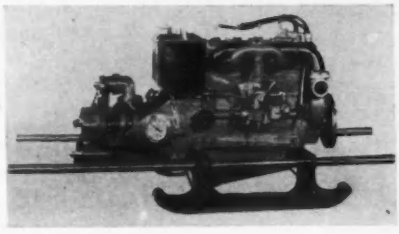
Type Y GPM	Pounds
63	100
59	125
53	150
46	175
40	200

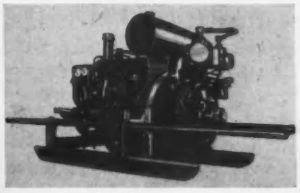
Weight 70 Pounds

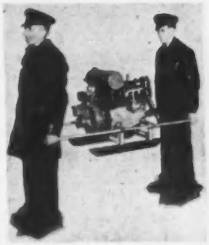


Type U GPM	Pounds
102	50
88	140
76	160
63	180
37	200

Weight 175 Pounds







One of the special uses of portables is to furnish hose streams as illustrated from water sources inaccessible to larger pumpers. The pump shown above and being carried by two men is a "Champion" Portable Fire Pumper (W. S. Darley Co., Chicago, Ill.). Capacity figures based on draft with 5-foot lift are: 250 GPM at 104 pounds, 150 GPM at 150 pounds, 50 GPM at 200 pounds.

Two good 1½ lines from the detachable 100 GPM pump of the Mobile Portable Unit of the Sealand Corp., Bridgeport, Conn.

MAKING A GOOD JOB OF IT

BY WARREN Y. KIMBALL

When a Hose Line Bursts

THERE is probably nothing more disconcerting to the fire department in the general run of fire fighting operations than to have a section of hose burst at the height of a fire.

The spectators right away conclude that there must be something wrong with the fire equipment even though the firemen may know that the hose was tested only a month or two before.

The firemen scurry for the apparatus appliance racks while decision is being made whether to shut down the pump or use a hose clamp to stop the flow of water so as to replace the burst section, or to snap a burst hose jacket around the place where water is squirting and keep right on with the fire fighting.

While this is the sort of problem for which it is hard to lay down any rules, common sense would seem to indicate that if after the break the stream remains reasonably effective and if the fire is active and spreading, a burst hose jacket should be snapped around the line and the stream should remain in use until the main body of fire has been knocked down or another line has been brought into position to relieve the defective one.

Although it takes a comparatively short time for a well drilled fire department to apply a clamp and replace a section of hose, fires often make a lot of progress while the water is thus turned off. There are many cases on record where fires have "gotten away" in early stages by the bursting of a hose line.

Water squirting from a burst section looks pretty sloppy but may not be very serious. Although when and where the break occurs will enter into the decision, fire fighters often make a better showing by letting the condition of the stream rather than the amount of spray from a break determine the action to be taken in dealing with a burst hose line.

Good hose, well cared for, will not often burst unless subjected to too high pump pressure or to high pressure from suddenly shutting down the nozzle.

City Found Liable for Conditions at Public Dumps

HOLDING the city responsible for a fire loss resulting from a fire on the city dump, a superior court jury recently awarded $73,000 to owners of a mill in Woonsocket, R. I., destroyed by a fire several years ago. It is to be hoped that this court decision as to municipal liability for improper conditions at public dumps may arouse other communities from their complacency regarding dumps which are both a fire hazard and a general disgrace to many otherwise respectable communities. The average citizen who boasts of the fine schools, libraries and playgrounds of his home town is seldom cognizant of the unsanitary and hazardous conditions so often found at the public dump. He pays a less fortunate neighbor to carry away refuse or merely puts out the barrels for the municipal collector.

Firemen, by contrast, are well aware of the true conditions at the local dump. They are most frequently the goats in situations where public dumps are not under proper care and supervision. While any good smoke eater will not kick about the punishment he takes while fighting to save lives and property from fires, no fire fighters have been found who enjoy spending long hours breathing in the rotten smoke and fumes of a dump fire while startled rats scurry around their feet—just because the authorities of other municipal departments are indifferent in matters of cleanliness and sanitation.

Where a dump is large enough to be a general nuisance, and where the fire department is repeatedly called out for fires, special measures should be employed. The commonest is to make one or more men responsible for the supervision of conditions at the dump. These men are given some old fire hose so that they can promptly knock down fires without calling out the fire department. This saves good hose and other needless wear and tear on men and apparatus.

"Fireproof" Building Has Its "Achilles Heel"

MOST people are familiar with the old story of the famous Greek warrior Achilles who met death through a wound in his heel which was his one vulnerable spot. Just so, fire protection engineers know that a great many so-called "fire-proof" buildings are subject to destruction or serious damage by fire due to just one weak spot in their design. This weak spot in the construction of a large number of otherwise modern fire resistive buildings is their roof structure. Architects, obviously unfamiliar with the long record of large fire losses resulting from the practice, frequently specify a combustible roof structure over an otherwise fire resistive building. They evidently reason that there can be little harm in economizing a bit at the roof level as the public seldom knows what type of construction is above the top floor ceiling of an imposing new structure. Not being fire fighters, architects and builders seldom realize how quickly the heat from even a small fire rises and banks under the roof and how inaccessible the average roof space is to fire fighters.

How this form of "penny-wise" economy results in serious damage to many fine buildings is well illustrated by a fire on the morning of November 12, 1940, at the Consolidated School at Sulphur Springs, Ohio. According to a report by the Ohio Inspection Bureau, this was a modern school building with brick walls and concrete floors and ceilings. Above the second floor was an attic accessible only by a ladder from the rear of the school auditorium. The roof over the attic was composition on wood sheathing and wood trusses.

The fire, attributed to defective wiring, was discovered at 9:20 o'clock A. M. when smoke was seen coming from the northeast corner of the roof. The building was emptied of children without trouble. The hose from the standpipe rack on the first floor was found to be too short to reach the attic. Calls were put in to nearby fire departments and Bucyrus, Crestline and New Washington each sent a truck with a booster pump and tank. By the time the apparatus arrived the roof had fallen in over the scurce of the fire. As there was no public water system or cisterns available the only water was in the booster tanks backed up by tanks from Bucyrus and Tiro and tanks brought by farmers. The roof was pretty well burned off the building and the fire burned off wooden ceilings over several closets. Large beams over the auditorium were warped considerably. In all damage of about $40,000 was caused to this modern fire resistive school building.

Similar experiences elsewhere have shown that about the same results might have been expected even if more water had been available for fire fighting. Fire departments know the problems presented by wooden roof structures on fire-resistive buildings. They have a responsibility to point them out to architects and school authorities.

It is easier to stop a fire while the plans are on the drafting board than later when a lot of combustible material has been built into the structure.

TEN WAYS TO KILL A VOLUNTEER FIRE COMPANY

From a statement posted in the fire hall at Clarion, Iowa.

1. Don't go to meetings.
2. If you do, go late.
3. If the weather doesn't suit you, don't think of going.
4. If you attend a meeting, find fault with the rest of the members.
5. Never accept office. It is easier to criticize than do things.
6. Get "sore" if you are not appointed on a committee, but if you are, do not attend committee meetings.
7. If asked by the chairman to give your opinion on some matter, tell him you have nothing to say. After the meeting tell everyone how things should have been done.
8. Do nothing more than absolutely necessary, but when other members use their ability to help matters along, howl out that the institution is run by a clique.
9. Be sure to get your dollar whether you make the fire or not.
10. If you have a suggestion to offer, tell the fire chief, and he will no doubt say "Who the hell is running this place?"

Qualifications for State Fire Marshal Regional Deputies

AN arrangement apparently common to several states is to appoint members of various fire companies as regional deputy state fire marshals in the territories protected by their respective companies. As state fire officers, the responsibilities of such local fire marshals are considerable. They must have special qualifications and experience not always obtained through routine fire fighting work in an average community. For example, a good deputy state fire marshal must be thoroughly familiar with all state laws relating to fire protection matters and be able to apply them. He must be familiar with the activities of all agencies and organizations participating in fire protection work. He must have a knowledge of various fire causes and fire hazards. He must know how to conduct an investigation of a suspicious or incendiary fire, how to obtain and preserve evidence in such a case, how to obtain witnesses and make records of confessions. He must be thoroughly familiar with the operation of state laws on the subject of arson.

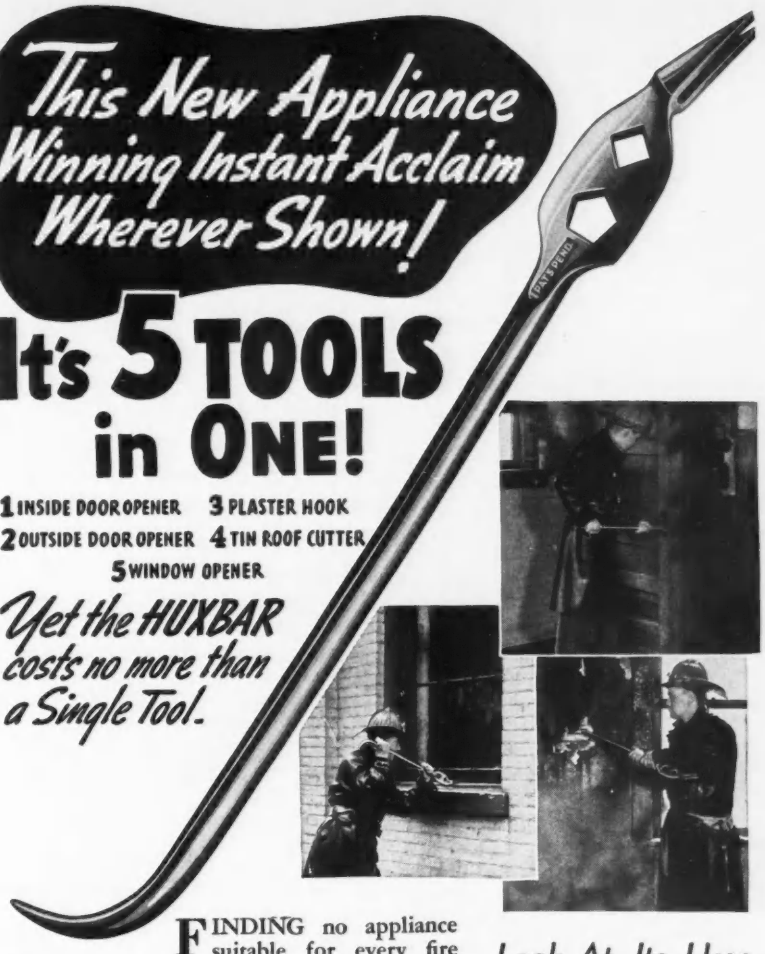
From the foregoing it is obvious that the selection of properly trained regional fire marshals may be a difficult job. In Maryland regional deputy fire marshals are appointed by the State Fire Marshal from an eligible list prepared from the results of an examination held during the Maryland State Firemen's Association's annual short course. The most recent of these examinations, held in September, consisted of thirty-three questions thoroughly canvassing the candidates' respective knowledge of a fire marshal's duties.

This New Appliance Winning Instant Acclaim Wherever Shown!

It's 5 TOOLS in ONE!

1 INSIDE DOOR OPENER 3 PLASTER HOOK
2 OUTSIDE DOOR OPENER 4 TIN ROOF CUTTER
5 WINDOW OPENER

Yet the HUXBAR costs no more than a Single Tool.



FINDING no appliance suitable for every fire fighting and general rescue need, Captain Walter C. Huxel, a veteran of the Cincinnati, Ohio, Fire Department, invented, developed and patented the Huxbar for fire fighting and rescue work. Now fire chiefs in large cities, and heads of volunteer fire organizations everywhere, are ordering it the instant they see it demonstrated. All are astounded at the simple, practical efficiency of the Huxbar.

The Huxbar is about 36" in length, weighs only 8½ lbs., but has a tensile strength of 175,000 lbs. per square inch.

Mounted on the side of the pumper, hook and ladder, and salvage truck with special chromium plated mounting brackets, the Huxbar equips the department for varied access and rescue jobs at very moderate cost.

Write for name of nearest representative and descriptive folder showing actual action photographs of the Huxbar in use by firemen and policemen.

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Opens Doors from inside or outside—with little or no damage!
Opens Any Type Window
Removes Shingles
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Sold through Fire Fighting Equipment and Municipal Supply Houses Everywhere

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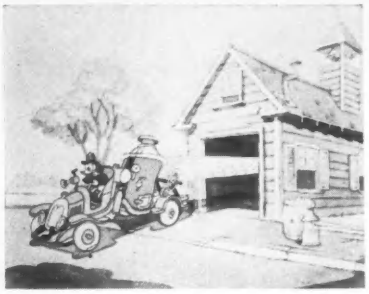
FIVE TOOLS IN ONE

IT SALVAGES --- DOES NOT DESTROY



WALT Disney's newest technicolor Donald Duck short production is entitled "Fire Chief." Harry Reeves was story director, perhaps because three years ago he was the initial victim of one of the most famous gags ever perpetrated by Disney staff hoaxsters.

It's known on the lot as the Volunteer Fireman gag. Since then the prank is played almost yearly on some studio victim.

Harry spoke scoffingly one afternoon three years ago of the studio's fire drills and the volunteer firemen's club. One of the volunteers winked at the others, then said to Harry, "Wait a minute. you're forgetting that we get paid twenty bucks a month extra just for taking a look twice a day at the offices in our corridor. If there's a fire, you report it; if there isn't, well, you just go on as usual. And for that—twenty bucks a month isn't bad. Now is it?"

Harry agreed that it wasn't so bad at that. As a matter of fact he went even further. He insisted that he be made a volunteer fireman at once.

So the boys sent him down to the Hollywood Division Headquarters of the Los Angeles Fire Department with the instructions that he was to be given a physical examination and that he should pay five dollars for his certificate.

City firemen, apprised by telephone, were ready for Harry. They made him climb up and down ladders, slide the brass pole and lift sacks of sand until he was exhausted. They thumped his chest, felt his biceps, put gas masks on his face, boots on his feet, gave him smoke tests, finally accepted his five dollars in exchange for a form they had drawn up for the occasion.

Eventually, of course, Harry learned the truth and had his five dollars refunded. But the gag has become perennial.

So when story crews were organized recently to work on the RKO Radio release "Fire Chief," Harry was cast as story director without debate.

The studio invited Captain Orville J. Emory, Director Public Relations, Los Angeles Fire Department, to act as technical adviser to its artists in making the picture.

Captain Emory showed the artist motion pictures of firemen in training and fire fighting and explained their duties and qualifications.

And so Donald Duck races through non-stop comedy with authentic props. But the manner in which he misuses them in a series of typically Disney gags is anything but authentic.

For That Annual Report

THERE is a sheet you can purchase which is a form suitable for inclusion in the annual report of your company or department. It provides space for the listing of the appropriate statistics covering the year's work. These forms in blank ready for filing out may be purchased in blocks of 50 for $1.25 a block from Public Administration Service, 1313 E. 60th Street, Chicago, Ill.

"They Have a New Pumper—But"

THE firemen of Glasgow, Kentucky, assisted by their neighbors from Horse Cave, fought a big fire that destroyed two business buildings with a loss of $120,000 in November. Praising the efforts of the firemen during their five hour battle with the flames, the editor of the Glasgow *Daily News* goes to bat for them in a matter that will doubtless interest the fire fighters in other communities where similar conditions exist. After describing "the horrible smoke from burning paint, coal, varnish, celluloid and other combustibles in the basement" faced by the firemen, the *Daily News* editor says:

"The firemen, all of them, were magnificent, but we can't say so much for their equipment. True, they have a new pumper (and we hate to think of what might have happened Saturday without it). They have axes, hooks, ladders, etc. But we failed to see that they had any approach to clothes adequate for the hot and heavy work (and some fires just will break out in mid-winter).

"A few dollars will buy wool clothing and a few dollars more will buy waterproof outer garments. Only a few dollars would be required to buy helmets badly needed to protect heads from falling timbers, bricks and glass.

"The grand total of $200 would buy wool shirts, pants, gloves, waterproof suits and helmets. That figures out to about $1 for each business man in Glasgow.

"The city seemingly can't or won't buy these items. Therefore, anyone wishing to join in a fund to purchase these things, need only send their contribution to the *Daily News*, and it will be spent as advised by Fire Chief John Nelson and Assistant Fire Chief Russell Francis, not for the city, but for the firemen themselves."

TRAINING NOTES

Memphis Conference

AS this issue appears, many readers will be leaving for Memphis, Tenn., to attend the Annual Fire Department Instructors' Conference. This is the important meeting of the year for fire department drillmasters and those in charge of state and regional training programs. The Memphis Fire Department, Irby C. Klinck, Chief, and the Fire Prevention Department of the Western Actuarial Bureau, Chicago, Richard E. Vernor, Manager, are joint sponsors of the Conference.

This will be the thirteenth year of the Conference. It is one of the reasons why firemen's training has had such a rapid development, particularly in states of the Middle West and Southwest. Drillmasters from many important cities will be there and the training programs of some twenty-five or thirty states will be represented.

New Jersey

NEW Jersey has no state-wide program for training firemen although the State Department of Education has assisted various local city programs and county programs. County programs, both state-sponsored and independent, have operated at various times in Bergen, Morris, Sussex, Union, Warren and other counties. The South Jersey Fire School of Instruction, set up by the volunteer fire companies in five counties—Burlington, Camden, Cape May, Gloucester and Salem—operates a 3-hour session 48 weeks a year. The first school of really state-wide character is now being conducted by the University Extension Division of Rutgers University with the co-operation of an advisory committee of New Jersey fire chiefs. A class of 43 fire department officers has just completed the first semester consisting of three hours weekly for ten weeks and will begin a second 10-week semester February 7.

Iowa

FALL district fire schools in Iowa rang up an attendance totaling 945 firemen. The schools were held during September and October at McGregor, Cedar Rapids, Newton, Creston, Denison, Pocahontas, Mason City, Cedar Falls and Keokuk. The largest attendance was at McGregor, 190, and Denison, 184. Each of these was a one-day short course.

The Iowa State Advisory Committee on Firemen's Training has outlined courses suitable for both paid and volunteer fire departments. An elementary course consisting of ten sessions of two hours each is planned primarily for volunteer fire departments. There is

also a standard course and an advanced course which include fire fighting tactics in various types of fires. These courses are intended to be given in local departments. The State Advisory Committee explains that when a fire department desires to organize a class it should get the cooperation of the local school board in sponsoring it. Half of the expense of the instructor's service must be borne by the local school board or by the fire department and the instructor must be approved by the State Board for Vocational Education. Under these circumstances, the State Board covers the other half of the expense of instruction through federal vocational training funds available for the purpose.

McPherson, Kansas

HERE'S how one Kansas fire department works out a training program on a practical basis as reported in the Fire Department News Letter issued by the Kansas State Board for Vocational Education and the Fire School Committee of the Kanas State Firemen's Association. The City of McPherson has a population of a little over 6,000. The fire department consists of the Chief and four firemen who are employed on a full time basis and a staff of volunteers who are pa.d for attending drills and responding to alarms. Chief Lindgren has formulated a comprehensive training program for the fall and winter months. The men meet two nights each month for training. Each night a single subject is considered and presented by one of the firemen who has prepared himself for the occasion. By this method each member of the department has to take an active interest in the training program and contribute in an equal way. It proves a splendid method of keeping everyone interested.

ANNOUNCEMENTS

The Mine Safety Appliances Company, Pittsburgh, Pa., has just issued a new 6-page bulletin describing its H-H inhalator. This inhalator provides for independent as well as simultaneous treatment for a second victim. Write Mine Safety Appliances Company, Pittsburgh, Pa., asking for Inhalator Bulletin C.O.-9.

Hersey & Company, Inc., 2021 Minor, North, Seattle, Wash., manufactures a "Flexaust" ventilating duct which they advise is adapted to use with smoke ejectors of the centrifugal blower type and also complete electric or gasoline powered portable ventilating units. They announce the publication of a new price list and descriptive leaflet.

CAIRNS

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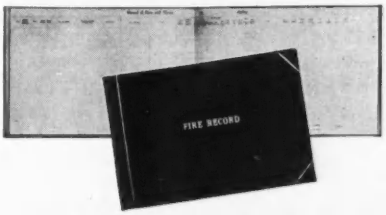
Regulation Style

Drop Brim Style

HELMETS

With CUSHION LINING

The Cairns "American Regulation" is still the standard helmet with department chiefs throughout U. S. and Canada, and in many neighbor nations to the South. The smaller "Drop Brim" style is preferred by some. Made in leather or aluminum, both styles can be supplied on order with the Cairns "Cushion Lining" that absorbs shocks, insulates, grips the head firmly without pressure, and can be easily removed for cleaning.



DEPARTMENT RECORDS

You'll need our new Loose-Leaf Fire Record Book, in sizes from 375 to 1500 alarms, for your 1941 records. Let us supply also your Secretary's Record Book, Secretary's forms, Membership Certificates, etc.

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Write for Catalog 30-C

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The "Model A" Super

Which Every Volunteer Fire Department Should Know About

Both 1 Quart and 1½ Quart Sizes

Every volunteer Fire Department should know the exclusive qualities of this first-aid extinguisher which experience shows should be the first to be carried into any fire because:—

FIRST:—

It is safe to use on electrical fires. Fyr-Fyter fluid is not only a powerful fire extinguishing fluid, but a most certain insulation—safeguarding the operator against serious injury or possible death from electrical contact.

AND SECOND:—

It is effective on concealed fires in walls and other "hard to reach" locations and is effective also on fires in greases, oils and the more flammable liquids.

SALESMEN WANTED

If you are interested in adding to your income by spare time work or in building a permanent business for yourself without investment in stock, fixtures, etc., write for our new Dealer's Plan to

THE FYR-FYTER COMPANY

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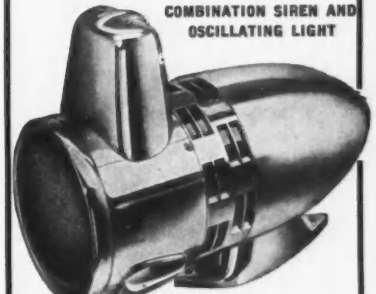
Even the Deaf JUMP!

when you clear the way with your

TRAFFIK-KING

COMBINATION SIREN AND OSCILLATING LIGHT



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WRITE FOR COMPLETE DETAILS AND CATALOG TODAY!

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"SIREN HEADQUARTERS"

8717 South State St. Chicago, Ill.

Fleet of six Type 80 750-gallon Mack pumpers recently placed in service by city of Fort Worth, Texas.

London's Auxiliary Fire Service

ONE of our contemporaries who always has something interesting to say signs himself "Pyro" and conducts the column "Firecrackers" in *The Chief*, Civil Service newspaper published in New York City.

In the absence of anything official from the three New York firemen who, as this is written, are apparently marooned in London by the difficulty of getting reservations on the *Atlantic Clipper*, "Pyro" singled out for an interview Mr. Leslie I. Preston, Section Officer of the London Auxiliary Fire Service who has been in this country on business. From Mr. Preston he obtained some data and observations about the Auxiliary Fire Service of the London Fire Brigade. This interview with Mr. Preston brought forth much interesting information, including the following.

There are about 26,000 members of the A.F.S. and about 2,200 in the regular London Fire Brigade which have been consolidated into one force. Members of the A.F.S. trained two nights a week for two hours each before the war broke. Members started out without compensation, but now are paid three pounds, five shillings a week. They work 48 and are off 24 hours. They have 3,000 trailer pumps like the one illustrated on page 5 which are hooked up to motor vehicles. These pumps are manned by a crew consisting of four men. Fire hose of American manufacture predominates.

When air raids are in progress, the public has been instructed not to use the telephones to report fires. Signs posted all over the city tell you where the nearest sub-station of the fire brigade is located. British practice is to have fire alarms go to the nearest station rather than to a central office. There are 62 fire stations and each one has six sub-stations with 60 men each.

For emergency water supplies there are hundreds of portable canvas water tanks about the city, each containing 2,500 gallons. Mr. Preston observed that London has had marked success with small pieces of apparatus like trailers because he said they can be placed in alleyways and other confined areas.

U. S. Civil Service Selects Army Fire Brigade Officers

THE following information may be of interest to members of fire departments looking for positions in the fire brigades which are being organized at post encampments of the United States Army. All such are being made under the regulations and classification of the United States Civil Service. Fire department members interested in such positions should address the United States Civil Service Commission in their districts. They may also get in touch with the secretary of the United States Civil Service Examining Board at first and second class post offices. Positions available are being offered only within civil service districts or subdivisons in the districts in which the posts lie and information on positions open may be obtained from the local United States Civil Service authorities.

LIFE Magazine

Courtesy Hale Fire Pump Co.

Fire apparatus in use for air raid protection in London and that available in America is not alone similar in trailer units as shown on page 6. The similarity may also be noted in major pieces as shown by these two photographs. Above, crew members catnap between alarms in a London fire station. Below, an American made pumper with an independent pump unit mounted the same way as the British one.

Have a System of Street Fire Alarm Boxes

PROPERLY distributed fire alarm boxes systematically numbered, have an almost magical effect in speeding up fire department response to alarms. When a box is pulled it immediately sounds over the siren or whistle so that the entire department knows the exact location. In addition, with a good alarm box system, delays due to mistaken locations, such as are common with telephoned alarms, are eliminated.

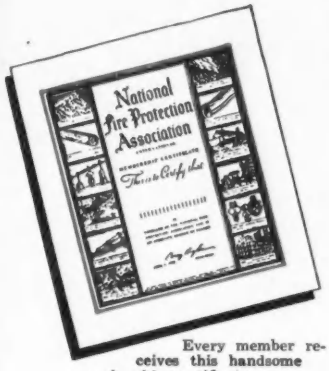
If you haven't now a system of street boxes but would like one, the first step is to lay out a plan for such a system Get a good map of the community and spot every location where a box is needed, including not only locations of street boxes but of boxes needed to properly protect schools, institutions, factories and other special hazards. Good box distribution would generally require a box at every street intersection in the business district and at every other intersection in other built-up areas. Under this plan every buildng in the business district would be within half a block of a fire alarm box. Buildings in other built up sections would be within one block of a box.

Making such a map won't alone produce a system, but with it you will have something to show folks you talk to to secure public support, something to use as a basis for estimates, and it will give you a start toward eventually getting a street box system.

Texas Cities Ask Authority for Outside Aid

THE League of Texas Municipalities took action at its annual meeting in November to deal with the troublesome problem of fire department outside aid. By resolution it urged the state legislature to pass adequate legislation authorizing cities to operate their fire fighting equipment outside of the city limits and in the rural sections of their respective counties. They also urge that the counties of Texas be authorized to either furnish to the cities equipment for fighting fires outside of the city limits, or to reimburse cities for expenses incident to the fighting of such fires.

Membership in the N.F.P.A.

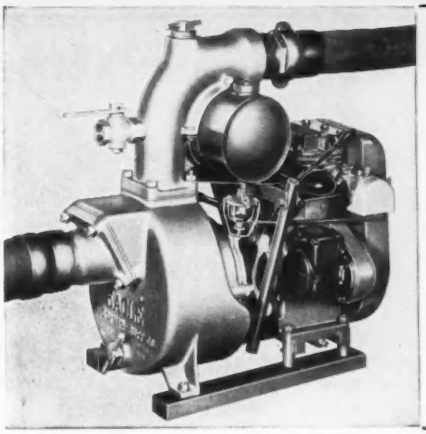


Every member receives this handsome membership certificate.

Membership with unusual advantages is available to fire companies and fire departments through the Volunteer Firemen's Section of the National Fire Protection Association. Here's the simple plan:

INDIVIDUAL membership in the National Fire Protection Association costs $10 per year. The membership plan for the Volunteer Firemen's Section is designed to give each fire company the advantages of N.F.P.A. membership. The fire company, as a member, receives at its headquarters a complete set of all regular N.F.P.A. literature, including the *Quarterly* magazine, as issued. In addition, as a special service to the Volunteer Firemen's Section, each fire company holding N.F.P.A. membership is entitled to have copies of the magazine VOLUNTEER FIREMEN sent to the home address of 10 firemen each month. If more than 10 firemen want to receive the magazine, an additional one dollar should be sent in with the membership fee for each fireman in excess of 10 enrolled.

Because of the large amount of material mailed to members, less than $10 can not be accepted from any company.



Get water to your pumper with this

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Pumps from Well - Lake - Stream, through 200 feet of fire hose.

- Easily carried by two men
- Occupies but little space
- The price is surprisingly low

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A Course of Fundamental Evolutions

Hose and Ladder Work

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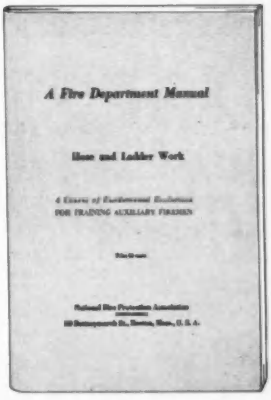


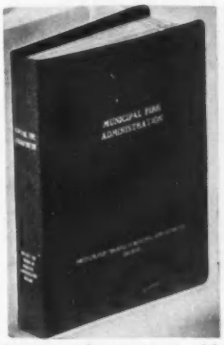
If you are a fire commissioner, city manager, fire chief or fire department officer, or if you hold any other administrative position in your local government, or aspire to such position—

KEEP AHEAD OF YOUR JOB

by enrolling in a Practical Correspondence Course in

FIRE ADMINISTRATION

WHILE sponsored by city managers as a part of the in-service training program of their profession, here is a course which has a value to everyone who has anything to do with the direction or operation of a fire department. The problems of volunteer and part-paid fire departments, including such typical ones as those of equipment, rural water supplies, mutual aid and county organization, are given equal attention with problems of the larger city fire department. Available nowhere else is the data included from more than 200 cities covering fire department personnel, stations, insurance costs and fire losses. The nominal fee of $25 for the course covers the above text (which the student may keep) the course of lessons, and personal review and correction of lesson papers.



A 600-page volume comes with the course and contains material never before found in print.

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Here's an inexpensive and versatile piece of equipment that will pay its way in any fire department. Light and small enough to trail any passenger car to the fire, or to be handled on smooth ground by one man, it is big and husky enough to deliver 150 honest gallons per minute at 100 lbs. pressure.

The self-priming centrifugal pump cannot clog or fail to function due to dirt, twigs, etc. which may be drawn in through the suction strainer, and the dirtiest water will not harm the pump.

Send for a free copy of Bulletin 47 for full details.

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$10.00-$3.00-$2.00 EACH MONTH

PYRENE PRIZE LETTER CONTEST

FIREMEN who have won prizes in this contest are, of course, very enthusiastic about it. Chief Arthur Jones of the Fire Department of Swayzee, Indiana, got a check for $10 for the first prize story printed last month. "It could not have come at a better time," says Chief Jones. He explained why, but what is important to other firemen readers is that any one of you can also win one of these cash awards.

You have probably been present at numerous fires where approved fire extinguishers have been successfully used. Every month the above cash prizes are paid to those whose letters contain the best stories.

It's the story we want, and no one need be bashful because he may doubt his ability to write the story effectively. Get the facts down on paper. We will attend to any rewriting necessary to get the story into the space available in these columns and to provide the story with a suitable heading.

This contest is sponsored cooperatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN to bring the lessons which may be learned from actual fires of the value of fire extinguishers as a means of saving life and property. Your story can help in this important service.

More fires are put out with fire extinguishers than by any other means. All fires are small at the start. Anyone may, sometime, have a fire. The stories reported in this contest this month and every month show over and over again the value of having an extinguisher handy.

FIRST PRIZE—$10.00

M. E. WELLMAN, *Chief*
Fire Department, North Loup, Neb.

Oil Burner Fire Knocked Down

The following is an experience in which an extinguisher of the carbon tetrachloride type saved three wood frame buildings from a sure loss. The fire was in a restaurant beer tavern where an oil heating unit had been installed in an old range. An attendant had turned on the oil and had gone away. Returning a few minutes later, he lit the burner. The ash bin, however, was full of oil and the oil had also run out on the floor and into a basket of papers. The show was on! The papered walls near the range were a sheet of flames when we arrived. Thanks again for the trusty extinguisher—a few shots and the fire was all out.

SECOND PRIZE—$3.00

THEODORE LAMPLUGH, *1st Lieutenant*
Linwood Fire Co. No. 1, Linwood, Pa.

Leaking Line Afire on Fuel Truck

One afternoon in July, an alarm was received for a truck fire about a mile and a half from our station in a neighboring town. When our first pumper arrived a large truck and trailer carrying fuel oil to a steel foundry was ablaze. A leaking gasoline line near the motor had ignited and flaming gasoline was running underneath the truck and trailer. We used a 2½-gallon foam extinguisher at the base of the fire near the leak. This controlled the blaze enough to allow us to shut off the supply line at the tank, thus preventing a serious fire and total loss to the truck and trailer.

THIRD PRIZE—$2.00

GEORGE A. LEACH, JR.
Fire Department, Ardmore, Pa.

A Trolley Fire

"Twelve Flee Trolley Fire in Ardmore." So read the front page of the Philadelphia papers. Just as I was going to bed, I heard the trolley, which runs about twenty yards behind our house, come to a stop. There seemed to be a commotion and when I reached the side of the trolley the large transformer box was blazing inside.

While the truck conductor pulled down the line, I sent in a fire call. Then because the trolley wasn't where responding firemen would see it, I hurried out to the street so that I might flag the engines upon their arrival.

Two of our volunteers responding to the sound of the siren saw my flashlight waving and stopped. They had a carbon tetrachloride extinguisher in their car. They quickly applied it and the fire went down on the record as being out on the arrival of the fire company. The amazing part of the story was that the trolley was not equipped with any type of fire extinguisher.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 8th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

Announcing

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